

REMARKS

Reconsideration of the present application, as amended, is respectfully requested. As a result of the present amendment, claims 25-29, 31-32, 36-41, 43-46, and 51-54 are under prosecution.

AMENDMENTS TO THE CLAIMS

Claims 25 and 31 are amended to add the *proviso* that, "the zeolite does not contain any of the one or more transition group 8 metals." These amendments are supported by the specification, e.g., at paragraphs 0047 and 0055 (page 12, lines 16-17, and page 15, lines 22-23). See also, page 10, lines 28-32, and page 12, lines 27-34.

No new matter is added.

THE CLAIMS ARE NOVEL AND NONOBVIOUS OVER HOEK, AND HOEK IN VIEW OF EILERS AND/OR BERTAUX

At item 9 of the Office Action, the Examiner has rejected claims 25-29, 31-32, 36-41, 43-46 and 51-54 as allegedly unpatentable under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly obvious over Hoek (US 2004/0199040) as evidence by Eilers (EP 668342 A1) and/or Bertaux (EP 776959 A2). The Examiner also applies this rejection to specific dependent claims in items 11-21 of the Office Action.

Applicants respectfully disagree. Anticipation requires the presence in a single prior art disclosure of each and every element of a claimed invention. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1052 (Fed. Cir. 1994) or see the Manual of Patent Examining Procedure (MPEP) §2131. However, this is not enough to sustain a *prima facie* anticipation rejection. More is required. As explained by the Federal Circuit, "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. [*Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 730 F.2d 1452, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)]. See also, *Akzo N.V. v. United States Int'l Trade Comm'n*, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed.Cir.1986), cert. denied, 482 U.S. 909, 107 S.Ct. 2490, 96 L.Ed.2d 382 (1987) which explained that,

Under 35 U.S.C. Sec. 102, anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed.Cir.1983), cert. denied, 469 U.S. 851, 105 S.Ct. 172, 83 L.Ed.2d 107 (1984). In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public. In *re Brown*, 329 F.2d 1006, 1011, 141 USPQ 245, 249 (CCPA 1964). (Underline added for emphasis).

Thus, in order to maintain a *prima facie* allegation that a claim is anticipated by a reference, it is clear that a single reference must describe the invention as claimed, and also enable the invention as claimed. A mere listing of parts or elements, not teaching the invention as actually claimed, is submitted to fail to anticipate, even if some of the elements of the reference might resemble or even be the same as the elements of the claimed invention.

Here, it appears that the Examiner has impermissibly used Applicants' specification as a road map for picking and choosing particular elements from Hoek and Eilers and/or Bertaux, without explaining how these references would have specifically enabled the particular inventive process and product as claimed.

The product of claim 25 is prepared by a specific process. The process of claim 31 is a specific set of steps, as follows:

processing FT (Fischer-Tropsch) paraffins, as a starting material, having carbon atoms in the range from 20 to 105;
in the presence of a catalyst based on a β -zeolite;
wherein the process is conducted at a temperature above 200°C, and
at a pressure in a range of 2 to 20 MPa in the presence of hydrogen...

The catalyst employed by the process is defined by claims 25 and 31 as follows:

wherein the catalyst comprises 60 to 95% by mass of zeolite of the beta type, based on the combination of all components fired at 800°C, 5 to 39.8 by mass of gamma-aluminum oxide having a specific surface area of 150-350 m²/g, calculated as Al₂O₃ and based on the combination of all components fired at 800°C, and one or more metals of transition group 8 of the periodic table, in an amount of 0.1 to 2.0% by mass, based on the combination of all components fired at 800°C, **the one or more transition group 8 metals being attached to the gamma-aluminum oxide, and wherein the zeolite does not contain any of the one or more transition group 8 metals** (bold added for emphasis).

It is submitted that Hoek fails to disclose the product of claim 25, or the process of claim 31, with each and every one of the elements of each respective claim, organized as required by each claim, and wherein the catalyst is defined to require, "one or more transition group 8 metals

being attached to the gamma-aluminum oxide, wherein the zeolite does not contain any of the one or more transition group 8 metals."

Hoek is silent as to aluminum oxide and is silent as to the zeolite not containing one or more transition group 8 metals, thus Hoek cannot anticipate the invention as claimed.

Turning to the rejection over Hoek, in view of Eilers or Bertaux, under 35 USC 103(a). In order to make out a *prima facie* rejection of the claims as allegedly obvious, the facts must show that the elements of the rejected claim(s) are present or suggested, e.g., by one or more references. The claimed invention must be viewed as a whole. *See generally* MPEP §§ 2141 and 2142. Further, the obviousness rejection cannot be a legally impermissible form of "obvious to try."

Neither Eilers nor Bertaux remedy the deficiencies of Hoek. For example, Eilers discloses a group 8 catalyst with an alumina carrier (e.g., page 5, lines 38-41), but nowhere teaches or suggests a catalyst composition including a group 8 metal, on alumina, combined with a zeolite, wherein the zeolite contains no group 8 metal. Bertaux teaches completely different processes. Bertaux teaches a process for producing, not waxes, but lubricating oils (Col. 2, lines 49-52). Potential catalysts according to Bertaux can include a hydrogenation component on amorphous silica alumina or alumina, etc. or combinations of these (Col. 3, lines 47-50), but fails to teach or suggest any process employing a transition group 8 metal on aluminum oxide in a composition with a zeolite not containing a transition group 8 metal.

Applicants also enclose the Declaration of Frank Bauer Under 37 CFR 1.132 ("the Declaration"). The Declaration provides additional confirmation that the inventive process is novel and nonobvious and produces a novel and nonobvious product.

Hydroisomerization and hydrocracking of n-paraffins on bifunctional catalysts is generally known and the reaction pathways are summarized by Fig. 1 (Declaration ¶11). The differences in products produced by the inventive process, and by prior art processes are more accurately illustrated by high temperature/resolution gas chromatography than by the pour, melting point, boiling range and needle penetration discussed by the cited references (Declaration ¶¶12-13). The hydroisomerized products are regarded as different mixtures of n- and iso-paraffins, including single and multi-branched isomers, and cannot be seen as one solid (undifferentiated) product (Declaration ¶14). The content and distribution of isomers in hydroisomerized products is influenced by the catalyst and reaction conditions (Declaration ¶14). Zeolite catalysts are useful, but tend to produce liquid products (Declaration ¶15). It has

unexpectedly been found that a bifunctional catalyst, with separate hydrogenation/dehydrogenation sites and the acid (zeolitic) sites can be employed in a process to provide a paraffin with a higher content of single and multibranched isoparaffins (Declaration ¶¶16-17, including Fig. 5). The paraffin produced by the inventive process is also novel and nonobvious, based on different ratios in n-/iso-paraffins and single/multibranched isomers, relative to prior art microcrystalline paraffins (Declaration ¶¶18-19).

The Declaration, at ¶11, cites to Weisz, Adv. Catal. 13: 137-190 (1962) and Coonradt and Garweed, Ind. Eng. Chem. Proc. Design Dev. 3: 38-45 (1964). These references are art-know, but copies of these references are enclosed herewith, for the convenience of the Examiner.

The Examiner has made specific additional rejections of the pending dependent claims at items 11-21 of the Office Action. Since the main claims are novel and nonobvious over the cited art, the claims depending therefrom are also novel and nonobvious, as a matter of law. Nevertheless, Applicants reserve the right to further respond to the rejections of any of the dependent claims, should the rejection of the independent claims be maintained.

For all of these reasons, reconsideration and withdrawal of these grounds of rejection is respectfully requested.

THE CLAIMS ARE NONOBVIOUS IN VIEW OF WITTENBRINK, HOEK AND BERTAUX, OR CARATI

At items 25-37 of the Office Action, the Examiner has rejected claims 25-29, 31-32, 36-41, 43-46 and 51-54 as allegedly obvious under 35 U.S.C. 103(a) over Wittenbrink (WO01/74969 A2) in view of either (1) Hoek and Bertaux or (2) Carati (U.S. Patent No. 5,981,419). The Examiner concedes that Wittenbrink fails to teach that “the hydroisomerization occurs in the presence of a catalyst comprising β -zeolite and aluminum oxide,” but then points to Wittenbrink at page 8 as defining a support as any zeolite or refractory oxide, and to Hoek and Bertaux (beta zeolite or alumina) or Carati for teaching a beta zeolite support.

Applicants respectfully disagree. The burden is on the Patent Office to initially provide facts supporting a *prima facie* rejection under 35 U.S.C. 103(a). As noted above, in order to make out a *prima facie* rejection, the facts must show that the elements of the rejected claim(s) are present or suggested, e.g., by one or more references. It is submitted that Wittenbrink fails to disclose the product of claim 25, or the process of claim 31, with each and every one of the elements of each respective claim, organized as required by each claim, and wherein the catalyst

is defined to require, "one or more transition group 8 metals being attached to the gamma-aluminum oxide, wherein the zeolite does not contain any of the one or more transition group 8 metals." At best, Wittenbrink teaches that a Group VIII noble metal can be supported by, e.g., alumina or zeolite or mixtures thereof (page 8). However, nowhere does Wittenbrink teach or suggest a composition of transition group 8 metals attached to gamma-aluminum oxide, wherein the zeolite does not contain any of the one or more transition group 8 metals.

Neither of the two alternative secondary art combinations remedy this clear deficiency. The deficiencies of Hoek and Bertaux are discussed above. Carati teaches a, "difunctional catalyst constituted by a boro-silicate or a boro-alumino-silicate isostructural with beta-zeolite and one or more metal(s) belonging to Group VIIIA, to its preparation and to its use in the hydroisomerization of long chain n-paraffins having more than 15 carbon atoms." (Col. 1, lines 9-14). Nowhere does Carati teach or suggest a composition of transition group 8 metals attached to gamma-aluminum oxide, wherein the zeolite does not contain any of the one or more transition group 8 metals. Thus, the artisan would not have looked to Carati to remedy the clear deficiencies of Wittenbrink in this regard.

Applicants also refer the Examiner to the enclosed Declaration of Frank Bauer Under 37 CFR 1.132 ("the Declaration"), as discussed above. The Declaration, as explained above, confirms that the inventive process is novel and nonobvious and produces a novel and nonobvious product.

The Examiner has made specific additional rejections of the pending dependent claims at items 26-37. If the main claims are nonobvious over the cited art, the claims depending therefrom are also nonobvious, as a matter of law. Nevertheless, Applicants reserve the right to further respond to the rejections of any of the dependent claims, should the rejection of the independent claims be maintained.

For all of these reasons, reconsideration and withdrawal of these rejections is respectfully requested.

CONCLUSION

In the event there are further issues remaining in any respect the Examiner is respectfully requested to telephone attorney to reach agreement to expedite issuance of this application.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Since the present claims set forth the present invention patentably and distinctly, and are not taught by the cited art either taken alone or in combination, this amendment is believed to place this case in condition for allowance, and the Examiner is respectfully requested to reconsider the matter, enter this amendment, and to allow all of the claims in this case.

FEES

This Response is being filed with a Petition for a Three-Month Extension of Time, a Request for Continued Examination and the fees required therefor. No new claims are added. No further fee is believed to be due. If, on the other hand, it is determined that further fees are due or any overpayment has been made, the Assistant Commissioner is hereby authorized to debit or credit such sum to Deposit Account No. 02-2275. Pursuant to 37 C.F.R. 1.136(a)(3), please treat this and any concurrent or future reply in this application that requires a petition for an extension of time for its timely submission as incorporating a petition for extension of time for the appropriate length of time. The fee associated therewith is to be charged to Deposit Account No. 02-2275.

Respectfully submitted

by: 

Laurence Manber

Registration No.: 35,597

LUCAS & MERCANTI, LLP
475 Park Avenue South
New York, New York 10016
Phone: 212-661-8000
Fax: 212-661-8002